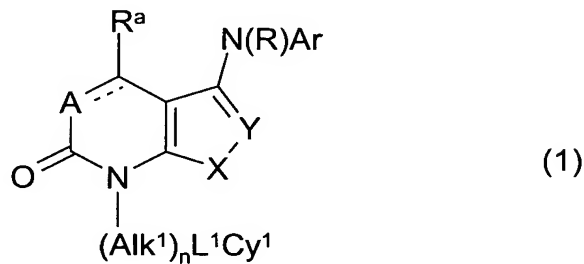


This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (previously presented) A compound of formula (1):



wherein:

the dashed line joining A and C(R<sup>a</sup>) is present and represents a bond and A is a -N= atom or a -C(R<sup>b</sup>)= group, or the dashed line is absent and A is a -N(R<sup>b</sup>)-, or -C(R<sup>b</sup>)(R<sup>c</sup>)- group;

R<sup>a</sup>, R<sup>b</sup> and R<sup>c</sup> are each independently a hydrogen atom or an optionally substituted C<sub>1-6</sub>alkyl, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sup>1</sup>, -CONH<sub>2</sub>, -CONHR<sup>1</sup> or -CONR<sup>1</sup>R<sup>2</sup> group;

R<sup>1</sup> and R<sup>2</sup> are each, independently, an optionally substituted alkyl group;

R is a hydrogen atom or a straight or branched C<sub>1-6</sub> alkyl group;

X is an -O-, -S- or substituted nitrogen atom or a -S(O)-, -S(O<sub>2</sub>)- or -NH- group;

Y is a nitrogen or substituted carbon atom or a -CH= group;

n is zero or the integer 1;

Alk<sup>1</sup> is an optionally substituted aliphatic or heteroaliphatic chain;

L<sup>1</sup> is a covalent bond or a linker atom or group;

Cy<sup>1</sup> is a hydrogen atom or an optionally substituted cycloaliphatic, polycycloaliphatic, heterocycloaliphatic, polyheterocycloaliphatic, aromatic or heteroaromatic group;

Ar is an optionally substituted aromatic or heteroaromatic group;  
or a pharmaceutically acceptable salt, solvate, hydrate, or N-oxide thereof.

2. (original) A compound according to Claim 1 wherein R is a hydrogen atom.

3. (previously presented) A compound according to Claim 1 wherein R<sup>a</sup> is a hydrogen atom.
4. (previously presented) A compound according to Claim 1 wherein the dashed line joining A and C(R<sup>a</sup>) is present and A is a -C(R<sup>b</sup>)= group.
5. (original) A compound according to Claim 4 wherein R<sup>b</sup> is a hydrogen atom.
6. (previously presented) A compound according to Claim 1 wherein X is an -O- or -S- atom.
7. (original) A compound according to Claim 6 wherein X is a -S- atom.
8. (previously presented) A compound according to Claim 1 wherein L<sup>1</sup> is a covalent bond.
9. (previously presented) A compound according to Claim 1 wherein n is the integer 1 and Alk<sup>1</sup> is an optionally substituted C<sub>1-6</sub>alkylene chain.
10. (original) A compound according to Claim 9 wherein Alk<sup>1</sup> is a -CH<sub>2</sub>- or -CH<sub>2</sub>CH<sub>2</sub>- chain.
11. (previously presented) A compound according to Claim 1 wherein n is zero.
12. (previously presented) A compound according to Claim 1 wherein Cy<sup>1</sup> is an optionally substituted cycloaliphatic, aromatic or heteroaromatic group.
13. (original) A compound according to Claim 12 wherein Cy<sup>1</sup> is an optionally substituted C<sub>3-7</sub>cycloalkyl group.
14. (original) A compound according to Claim 13 wherein Cy<sup>1</sup> is a cyclopropyl group.

15. (original) A compound according to Claim 12 wherein Cy<sup>1</sup> is an optionally substituted phenyl group.

16. (original) A compound according to Claim 15 wherein Cy<sup>1</sup> is a phenyl group.

17. (previously presented) A compound according to Claim 15 wherein

Cy<sup>1</sup> is a phenyl group substituted by one, two or three atoms or groups R<sup>10a</sup> or -L<sup>6</sup>Alk<sup>5</sup>(R<sup>10a</sup>)<sub>r</sub>;

R<sup>10a</sup> is a halogen atom, or an amino (-NH<sub>2</sub>), substituted amino, nitro, cyano, hydroxyl (-OH), substituted hydroxyl, formyl, carboxyl (-CO<sub>2</sub>H), esterified carboxyl, thiol (-SH), substituted thiol, -COR<sup>11</sup>, -CSR<sup>11</sup>, -SO<sub>3</sub>H, -SOR<sup>11</sup>, -SO<sub>2</sub>R<sup>11</sup>, -SO<sub>3</sub>R<sup>11</sup>, -SO<sub>2</sub>NH<sub>2</sub>, -SO<sub>2</sub>NHR<sup>11</sup>, -SO<sub>2</sub>N(R<sup>11</sup>)<sub>2</sub>, -CONH<sub>2</sub>, -CSNH<sub>2</sub>, -CONHR<sup>11</sup>, -CSNHR<sup>11</sup>, -CON(R<sup>11</sup>)<sub>2</sub>, -CSN(R<sup>11</sup>)<sub>2</sub>, -N(R<sup>12</sup>)SO<sub>2</sub>R<sup>11</sup>, -N(SO<sub>2</sub>R<sup>11</sup>)<sub>2</sub>, -N(R<sup>12</sup>)SO<sub>2</sub>NH<sub>2</sub>, -N(R<sup>12</sup>)SO<sub>2</sub>NHR<sup>11</sup>, -N(R<sup>12</sup>)SO<sub>2</sub>N(R<sup>11</sup>)<sub>2</sub>, -N(R<sup>12</sup>)COR<sup>11</sup>, -N(R<sup>12</sup>)CONH<sub>2</sub>, -N(R<sup>12</sup>)CONHR<sup>11</sup>, -N(R<sup>12</sup>)CON(R<sup>11</sup>)<sub>2</sub>, -N(R<sup>12</sup>)CSNH<sub>2</sub>, -N(R<sup>12</sup>)CSNHR<sup>11</sup>, -N(R<sup>12</sup>)CSN(R<sup>11</sup>)<sub>2</sub>, -N(R<sup>12</sup>)CSR<sup>11</sup>, -N(R<sup>12</sup>)C(O)OR<sup>11</sup>, -C=NR<sup>12</sup>(NR<sup>12</sup>), -SO<sub>2</sub>NHet<sup>1</sup>, -CONHet<sup>1</sup>, -CSNHet<sup>1</sup>, -N(R<sup>12</sup>)SO<sub>2</sub>NHet<sup>1</sup>, -N(R<sup>12</sup>)CONHet<sup>1</sup>, -N(R<sup>12</sup>)CSNHet<sup>1</sup>, -SO<sub>2</sub>N(R<sup>12</sup>)Het, -Het, -CON(R<sup>12</sup>)Het, -CSN(R<sup>12</sup>)Het, -N(R<sup>12</sup>)CON(R<sup>12</sup>)Het, -N(R<sup>12</sup>)CSN(R<sup>12</sup>)Het, -N(R<sup>12</sup>)SO<sub>2</sub>N(R<sup>12</sup>)Het, aryl or heteroaryl group;

R<sup>11</sup> is an -L<sup>6</sup>Alk<sup>3</sup>(R<sup>10a</sup>)<sub>r</sub>, aryl or heteroaryl group;

Alk<sup>3</sup> is a straight or branched C<sub>1-3</sub>alkylene chain;

R<sup>12</sup> is a hydrogen atom or a straight or branched alkyl group;

-NHet<sup>1</sup> is an optionally substituted C<sub>3-7</sub>cyclicamino group optionally containing one or more -O- or -S- atoms or -N(R<sup>12</sup>)-, -C(O)- or -C(S)- groups;

-Het is an optionally substituted monocyclic C<sub>3-7</sub>carbocyclic group optionally containing one or more -O- or -S- atoms or -N(R<sup>12</sup>)-, -C(O)-, -S(O)- or -S(O)<sub>2</sub>- groups;

L<sup>6</sup> is a covalent bond or a linker atom or group;

Alk<sup>5</sup> is an optionally substituted straight or branched C<sub>1-6</sub>alkylene, C<sub>2-6</sub>alkenylene or C<sub>2-6</sub>alkynylene chain, optionally interrupted by one, two or three -O- or -S- atoms or -S(O)<sub>n</sub>- or -N(R<sup>12</sup>)- groups;

n is the integer 1 or 2; and

r is zero or the integer 1, 2, or 3.

18. (previously presented) A compound according to Claim 12 wherein Cy<sup>1</sup> is an optionally substituted furyl, thienyl, pyrrolyl, oxazolyl, thiazolyl, pyridyl, pyrimidinyl, triazinyl or indolyl group.

19. (previously presented) A compound according to Claim 18 wherein Cy<sup>1</sup> is a thienyl, pyridyl or indolyl group.

20. (previously presented) A compound according to Claim 18 wherein each of said Cy<sup>1</sup> groups is substituted by one, two or three atoms or groups R<sup>10a</sup> or -L<sup>6</sup>Alk<sup>5</sup>(R<sup>10a</sup>) wherein

R<sup>10a</sup> is a halogen atom, or an amino (-NH<sub>2</sub>), substituted amino, nitro, cyano, hydroxyl (-OH), substituted hydroxyl, formyl, carboxyl (-CO<sub>2</sub>H), esterified carboxyl, thiol (-SH), substituted thiol, -COR<sup>11</sup>, -CSR<sup>11</sup>, -SO<sub>3</sub>H, -SOR<sup>11</sup>, -SO<sub>2</sub>R<sup>11</sup>, -SO<sub>3</sub>R<sup>11</sup>, -SO<sub>2</sub>NH<sub>2</sub>, -SO<sub>2</sub>NHR<sup>11</sup>, -SO<sub>2</sub>N(R<sup>11</sup>)<sub>2</sub>, -CONH<sub>2</sub>, -CSNH<sub>2</sub>, -CONHR<sup>11</sup>, -CSNHR<sup>11</sup>, -CON(R<sup>11</sup>)<sub>2</sub>, -CSN(R<sup>11</sup>)<sub>2</sub>, -N(R<sup>12</sup>)SO<sub>2</sub>R<sup>11</sup>, -N(SO<sub>2</sub>R<sup>11</sup>)<sub>2</sub>, -N(R<sup>12</sup>)SO<sub>2</sub>NH<sub>2</sub>, -N(R<sup>12</sup>)SO<sub>2</sub>NHR<sup>11</sup>, -N(R<sup>12</sup>)SO<sub>2</sub>N(R<sup>11</sup>)<sub>2</sub>, -N(R<sup>12</sup>)COR<sup>11</sup>, -N(R<sup>12</sup>)CONH<sub>2</sub>, -N(R<sup>12</sup>)CONHR<sup>11</sup>, -N(R<sup>12</sup>)CON(R<sup>11</sup>)<sub>2</sub>, -N(R<sup>12</sup>)CSNH<sub>2</sub>, -N(R<sup>12</sup>)CSNHR<sup>11</sup>, -N(R<sup>12</sup>)CSN(R<sup>11</sup>)<sub>2</sub>, -N(R<sup>12</sup>)CSR<sup>11</sup>, -N(R<sup>12</sup>)C(O)OR<sup>11</sup>, -C=NR<sup>12</sup>(NR<sup>12</sup>), -SO<sub>2</sub>NHet<sup>1</sup>, -CONHet<sup>1</sup>, -CSNHet<sup>1</sup>, -N(R<sup>12</sup>)SO<sub>2</sub>NHet<sup>1</sup>, -N(R<sup>12</sup>)CONHet<sup>1</sup>, -N(R<sup>12</sup>)CSNHet<sup>1</sup>, -SO<sub>2</sub>N(R<sup>12</sup>)Het, -Het, -CON(R<sup>12</sup>)Het, -CSN(R<sup>12</sup>)Het, -N(R<sup>12</sup>)CON(R<sup>12</sup>)Het, -N(R<sup>12</sup>)CSN(R<sup>12</sup>)Het, -N(R<sup>12</sup>)SO<sub>2</sub>N(R<sup>12</sup>)Het, aryl or heteroaryl group;

R<sup>11</sup> is an -L<sup>6</sup>Alk<sup>3</sup>(R<sup>10a</sup>)<sub>r</sub>, aryl or heteroaryl group;

Alk<sup>3</sup> is a straight or branched C<sub>1-3</sub>alkylene chain;

R<sup>12</sup> is a hydrogen atom or a straight or branched alkyl group;

-NHet<sup>1</sup> is an optionally substituted C<sub>3-7</sub>cyclicamino group optionally containing one or more -O- or -S- atoms or -N(R<sup>12</sup>)-, -C(O)- or -C(S)- groups;

-Het is an optionally substituted monocyclic C<sub>3-7</sub>carbocyclic group optionally containing one or more -O- or -S- atoms or -N(R<sup>12</sup>)-, -C(O)-, -S(O)- or -S(O)<sub>2</sub>- groups;

L<sup>6</sup> is a covalent bond or a linker atom or group;

Alk<sup>5</sup> is an optionally substituted straight or branched C<sub>1-6</sub>alkylene, C<sub>2-6</sub>alkenylene or C<sub>2-6</sub>alkynylene chain, optionally interrupted by one, two or three -O- or -S- atoms or -S(O)<sub>n</sub>- or -N(R<sup>12</sup>)- groups;

n is the integer 1 or 2; and

r is zero or the integer 1, 2, or 3.

21. (previously presented) A compound according to Claim 1 wherein Y is a group -CH= or -C(R<sup>10</sup>)= where

R<sup>10</sup> is an atom or group R<sup>10a</sup> or -L<sup>6</sup>Alk<sup>5</sup>(R<sup>10a</sup>);

R<sup>10a</sup> is a halogen atom, or an amino (-NH<sub>2</sub>), substituted amino, nitro, cyano, hydroxyl (-OH), substituted hydroxyl, formyl, carboxyl (-CO<sub>2</sub>H), esterified carboxyl, thiol (-SH), substituted thiol, -COR<sup>11</sup>, -CSR<sup>11</sup>, -SO<sub>3</sub>H, -SOR<sup>11</sup>, -SO<sub>2</sub>R<sup>11</sup>, -SO<sub>3</sub>R<sup>11</sup>, -SO<sub>2</sub>NH<sub>2</sub>, -SO<sub>2</sub>NHR<sup>11</sup>, -SO<sub>2</sub>N(R<sup>11</sup>)<sub>2</sub>, -CONH<sub>2</sub>, -CSNH<sub>2</sub>, -CONHR<sup>11</sup>, -CSNHR<sup>11</sup>, -CON(R<sup>11</sup>)<sub>2</sub>, -CSN(R<sup>11</sup>)<sub>2</sub>, -N(R<sup>12</sup>)SO<sub>2</sub>R<sup>11</sup>, -N(SO<sub>2</sub>R<sup>11</sup>)<sub>2</sub>, -N(R<sup>12</sup>)SO<sub>2</sub>NH<sub>2</sub>, -N(R<sup>12</sup>)SO<sub>2</sub>NHR<sup>11</sup>, -N(R<sup>12</sup>)SO<sub>2</sub>N(R<sup>11</sup>)<sub>2</sub>, -N(R<sup>12</sup>)COR<sup>11</sup>, -N(R<sup>12</sup>)CONH<sub>2</sub>, -N(R<sup>12</sup>)CONHR<sup>11</sup>, -N(R<sup>12</sup>)CON(R<sup>11</sup>)<sub>2</sub>, -N(R<sup>12</sup>)CSNH<sub>2</sub>, -N(R<sup>12</sup>)CSNHR<sup>11</sup>, -N(R<sup>12</sup>)CSN(R<sup>11</sup>)<sub>2</sub>, -N(R<sup>12</sup>)CSR<sup>11</sup>, -N(R<sup>12</sup>)C(O)OR<sup>11</sup>, -C=NR<sup>12</sup>(NR<sup>12</sup>), -SO<sub>2</sub>NHet<sup>1</sup>, -CONHet<sup>1</sup>, -CSNHet<sup>1</sup>, -N(R<sup>12</sup>)SO<sub>2</sub>NHet<sup>1</sup>, -N(R<sup>12</sup>)CONHet<sup>1</sup>, -N(R<sup>12</sup>)CSNHet<sup>1</sup>, -SO<sub>2</sub>N(R<sup>12</sup>)Het, -Het, -CON(R<sup>12</sup>)Het, -CSN(R<sup>12</sup>)Het, -N(R<sup>12</sup>)CON(R<sup>12</sup>)Het, -N(R<sup>12</sup>)CSN(R<sup>12</sup>)Het, -N(R<sup>12</sup>)SO<sub>2</sub>N(R<sup>12</sup>)Het, aryl or heteroaryl group;

R<sup>11</sup> is an -L<sup>6</sup>Alk<sup>3</sup>(R<sup>10a</sup>)<sub>r</sub>, aryl or heteroaryl group;

Alk<sup>3</sup> is a straight or branched C<sub>1-3</sub>alkylene chain;

R<sup>12</sup> is a hydrogen atom or a straight or branched alkyl group;

-NHet<sup>1</sup> is an optionally substituted C<sub>3-7</sub>cyclicamino group optionally containing one or more -O- or -S- atoms or -N(R<sup>12</sup>)-, -C(O)- or -C(S)- groups;

-Het is an optionally substituted monocyclic C<sub>3-7</sub>carbocyclic group optionally containing one or more -O- or -S- atoms or -N(R<sup>12</sup>)-, -C(O)-, -S(O)- or -S(O)<sub>2</sub>- groups;

L<sup>6</sup> is a covalent bond or a linker atom or group;

Alk<sup>5</sup> is an optionally substituted straight or branched C<sub>1-6</sub>alkylene, C<sub>2-6</sub>alkenylene or C<sub>2-6</sub>alkynylene chain, optionally interrupted by one, two or three -O- or -S- atoms or -S(O)<sub>n</sub>- or -N(R<sup>12</sup>)- groups;

n is the integer 1 or 2; and

r is zero or the integer 1, 2, or 3.

22. (previously presented) A compound according to Claim 21 wherein  $R^{10}$  is a -CN,  $-X^1NH_2$ ,  $-X^1NHR^{11}$ ,  $-X^1N(R^{11})_2$ ,  $-X^1NHet^1$ ,  $-X^1N(R^{12})Het$ ,  $-X^1N(R^{12})Alk^5Het$ ,  $-COR^{11}$ ,  $-C=NR^{12}(NR^{12})$  or esterified carboxyl group; and

$X^1$  is a -C(O)- or -S(O)<sub>2</sub>- group.

23. (original) A compound according to Claim 22 wherein  $R^{10}$  is a -CN, -CONH<sub>2</sub>, -CONHR<sup>11</sup>, -CON(R<sup>11</sup>)<sub>2</sub>, -CONHet<sup>1</sup>, -CON(R<sup>12</sup>)Het, -CON(R<sup>12</sup>)Alk<sup>5</sup>Het or esterified carboxyl group.

24. (previously presented) A compound according to Claim 1 wherein Ar is an optionally substituted phenyl, furyl, thienyl, pyrrolyl, oxazolyl, thiazolyl, pyridyl, pyrimidinyl or triazinyl group.

25. (original) A compound according to Claim 24 wherein Ar is an optionally substituted phenyl group.

26. (previously presented) A compound according to Claim 25 wherein Ar is a phenyl group or a phenyl group substituted by one, two or three atoms or groups  $R^{10a}$  or  $-L^6Alk^5(R^{10a})_r$  where

$R^{10a}$  is a halogen atom, or an amino (-NH<sub>2</sub>), substituted amino, nitro, cyano, hydroxyl (-OH), substituted hydroxyl, formyl, carboxyl (-CO<sub>2</sub>H), esterified carboxyl, thiol (-SH), substituted thiol, -COR<sup>11</sup>, -CSR<sup>11</sup>, -SO<sub>3</sub>H, -SOR<sup>11</sup>, -SO<sub>2</sub>R<sup>11</sup>, -SO<sub>3</sub>R<sup>11</sup>, -SO<sub>2</sub>NH<sub>2</sub>, -SO<sub>2</sub>NHR<sup>11</sup>, -SO<sub>2</sub>N(R<sup>11</sup>)<sub>2</sub>, -CONH<sub>2</sub>, -CSNH<sub>2</sub>, -CONHR<sup>11</sup>, -CSNHR<sup>11</sup>, -CON(R<sup>11</sup>)<sub>2</sub>, -CSN(R<sup>11</sup>)<sub>2</sub>, -N(R<sup>12</sup>)SO<sub>2</sub>R<sup>11</sup>, -N(SO<sub>2</sub>R<sup>11</sup>)<sub>2</sub>, -N(R<sup>12</sup>)SO<sub>2</sub>NH<sub>2</sub>, -N(R<sup>12</sup>)SO<sub>2</sub>NHR<sup>11</sup>, -N(R<sup>12</sup>)SO<sub>2</sub>N(R<sup>11</sup>)<sub>2</sub>, -N(R<sup>12</sup>)COR<sup>11</sup>, -N(R<sup>12</sup>)CONH<sub>2</sub>, -N(R<sup>12</sup>)CONHR<sup>11</sup>, -N(R<sup>12</sup>)CON(R<sup>11</sup>)<sub>2</sub>, -N(R<sup>12</sup>)CSNH<sub>2</sub>, -N(R<sup>12</sup>)CSNHR<sup>11</sup>, -N(R<sup>12</sup>)CSN(R<sup>11</sup>)<sub>2</sub>, -N(R<sup>12</sup>)CSR<sup>11</sup>, -N(R<sup>12</sup>)C(O)OR<sup>11</sup>, -C=NR<sup>12</sup>(NR<sup>12</sup>), -SO<sub>2</sub>NHet<sup>1</sup>, -CONHet<sup>1</sup>, -CSNHet<sup>1</sup>, -N(R<sup>12</sup>)SO<sub>2</sub>NHet<sup>1</sup>, -N(R<sup>12</sup>)CONHet<sup>1</sup>, -N(R<sup>12</sup>)CSNHet<sup>1</sup>, -SO<sub>2</sub>N(R<sup>12</sup>)Het, -Het, -CON(R<sup>12</sup>)Het, -CSN(R<sup>12</sup>)Het, -N(R<sup>12</sup>)CON(R<sup>12</sup>)Het, -N(R<sup>12</sup>)CSN(R<sup>12</sup>)Het, -N(R<sup>12</sup>)SO<sub>2</sub>N(R<sup>12</sup>)Het, aryl or heteroaryl group;

$R^{11}$  is an  $-L^6Alk^3(R^{10a})_r$ , aryl or heteroaryl group;

$Alk^3$  is a straight or branched  $C_{1-3}$ alkylene chain;

$R^{12}$  is a hydrogen atom or a straight or branched alkyl group;

$-NHet^1$  is an optionally substituted  $C_{3-7}$ cyclicamino group optionally containing one or more -O- or -S- atoms or  $-N(R^{12})-$ ,  $-C(O)-$  or  $-C(S)-$  groups;

$-Het$  is an optionally substituted monocyclic  $C_{3-7}$ carbocyclic group optionally containing one or more -O- or -S- atoms or  $-N(R^{12})-$ ,  $-C(O)-$ ,  $-S(O)-$  or  $-S(O)_2-$  groups;

$L^6$  is a covalent bond or a linker atom or group;

$Alk^5$  is an optionally substituted straight or branched  $C_{1-6}$ alkylene,  $C_{2-6}$ alkenylene or  $C_{2-6}$ alkynylene chain, optionally interrupted by one, two or three -O- or -S- atoms or  $-S(O)_n-$  or  $-N(R^{12})-$  groups;

n is the integer 1 or 2; and

r is zero or the integer 1, 2, or 3.

27. (previously presented) A compound which is

ethyl 3-(phenylamino)-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(2-chlorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(3-chlorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(4-chlorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[methyl(phenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(2-methoxyphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 6-oxo-7-phenyl-3-[(3-trifluoromethoxyphenyl)amino]-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(4-cyanophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(3-cyanophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

ethyl 3-[(2-cyanophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

ethyl 3-[(3-fluoro-4-methoxyphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

ethyl 3-[(2,4-difluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

ethyl 6-oxo-7-phenyl-3-[(3-tolyl)amino]-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

ammonium 6-oxo-3-(phenylamino)-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

3-(phenylamino)-7-phenylthieno[2,3-*b*]pyridin-6(7*H*)-one;

6-oxo-3-(phenylamino)-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

6-oxo-7-phenyl-3-phenylamino-6,7-dihydro-thieno[2,3-*b*]pyridine-2-carboxamide;

6-oxo-*N*-(2-piperidinoethyl)-3-(phenylamino)-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

6-oxo-3-(phenylamino)-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile;

6-oxo-7-phenyl-3-phenylamino-6,7-dihydro-thieno[2,3-*b*]pyridine-2-carbonitrile;

3-(3-bromophenylamino)-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile;

3-(3-chlorophenylamino)-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile;

7-(2-chlorophenyl)-3-[(4-fluoro-3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile;

7-(2-chlorophenyl)-3-[(4-fluoro-3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-anilino-7-(2-chlorophenyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile;

3-anilino-7-(2-chlorophenyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-[(4-fluoro-3-methylphenyl)amino]-7-(4-methylphenyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

7-(4-methylphenyl)-3-[(3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile;

7-(4-methylphenyl)-3-[(3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

7-cyclopropyl-3-[(4-fluoro-3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile

7-cyclopropyl-3-[(4-fluoro-3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

7-cyclopropyl-3-[(3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile;

7-cyclopropyl-3-[(3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-[(4-fluoro-3-methylphenyl)amino]-7-(2-methylphenyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile;

3-[(2,4-difluorophenyl)amino]-7-(2-methylphenyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile;

7-(2-methylphenyl)-3-[(3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-[(4-fluoro-3-methylphenyl)amino]-7-(2-methylphenyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-[(2,4-difluorophenyl)amino]-7-(2-methylphenyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

ethyl 3-anilino-7-(1H-indol-5-yl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

3-anilino-7-(1H-indol-5-yl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

ethyl 3-[(2-cyanophenyl)amino]-7-(1H-indol-5-yl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

3-[(2-cyanophenyl)amino]-7-(1H-indol-5-yl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

ethyl 3-[(2-cyanophenyl)amino]-7-[1-(methylsulfonyl)-1H-indol-5-yl]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

ethyl 3-[(2-cyanophenyl)amino]-7-(1-methyl-1H-indol-5-yl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

3-anilino-7-(cyclopropylmethyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

ethyl 3-anilino-7-(cyclopropylmethyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

3-anilino-7-(cyclopropylmethyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-7-(cyclopropylmethyl)-N-methoxy-N-methyl-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

ethyl 7-(cyclopropylmethyl)-3-[(2,4-difluorophenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

7-(cyclopropylmethyl)-3-[(2,4-difluorophenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

7-(cyclopropylmethyl)-3-[(3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

7-(cyclopropylmethyl)-3-[(4-fluoro-3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(3-chloro-4-fluorophenyl)amino]-7-(cyclopropylmethyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

7-(cyclopropylmethyl)-3-[(2,4-dimethylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

7-(cyclopropylmethyl)-3-[(3,4-dimethylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

7-(cyclopropylmethyl)-3-[(3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

7-(cyclopropylmethyl)-3-[(4-fluoro-3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

7-(cyclopropylmethyl)-3-[(3-chloro-4-fluorophenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

7-(cyclopropylmethyl)-3-[(2,4-dimethylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

7-(cyclopropylmethyl)-3-[(3,4-dimethylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

ethyl 3-[(2-cyano-3-methylphenyl)amino]-7-(cyclopropylmethyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

3-[(2-cyano-3-methylphenyl)amino]-7-(cyclopropylmethyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-anilino-7-(cyclopropylmethyl)-6-oxo-N-(2-piperidin-1-ylethyl)-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

ethyl 3-[(3-bromophenyl)amino]-7-(cyclopropylmethyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

3-[(3-bromophenyl)amino]-7-(cyclopropylmethyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

ethyl 3-anilino-6-oxo-7-(3-thienyl)-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;  
3-anilino-6-oxo-7-(3-thienyl)-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

ethyl 3-[(2-cyanophenyl)amino]-6-oxo-7-(3-thienyl)-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

3-[(2-cyanophenyl)amino]-6-oxo-7-(3-thienyl)-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

ethyl 3-[(4-fluoro-3-methylphenyl)amino]-6-oxo-7-(3-thienyl)-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

3-[(4-fluoro-3-methylphenyl)amino]-6-oxo-7-(3-thienyl)-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

ethyl 3-[(2,4-difluorophenyl)amino]-6-oxo-7-(3-thienyl)-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

ethyl 6-oxo-7-phenyl-3-(pyridin-3-ylamino)-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

ethyl 3-[(2-chloropyridin-3-yl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

3-[(6-methylpyridin-2-yl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(6-methylpyridin-2-yl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(6-chloropyridin-2-yl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(6-chloropyridin-2-yl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

ethyl 3-[(2-cyanophenyl)amino]-7-[4-(methylthio)phenyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(2-cyanophenyl)amino]-7-[4-(methylsulfinyl)phenyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

3-[(2-cyanophenyl)amino]-7-[4-(methylsulfinyl)phenyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

ethyl 3-anilino-7-[4-(methylthio)phenyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-anilino-7-[4-(methylsulfinyl)phenyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(3-methylphenyl)amino]-7-[4-(methylthio)phenyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(3-methylphenyl)amino]-7-[4-(methylsulfonyl)phenyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

3-[(3-methylphenyl)amino]-7-[4-(methylsulfonyl)phenyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

ethyl 3-anilino-6-oxo-7-[4-(pyrrolidin-1-ylmethyl)phenyl]-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(2,4-difluorophenyl)amino]-7-{4-[2-(2-methyl-1H-imidazol-1-yl)ethoxy]phenyl}-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

3-[(2,4-difluorophenyl)amino]-7-{4-[2-(2-methyl-1H-imidazol-1-yl)ethoxy]phenyl}-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

ethyl 3-[(2,4-difluorophenyl)amino]-6-oxo-7-(4-vinylphenyl)-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-anilino-6-oxo-7-(4-vinylphenyl)-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

3-anilino-6-oxo-7-(4-vinylphenyl)-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

ethyl 3-anilino-7-[4-(1,2-dihydroxyethyl)phenyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

3-anilino-7-[4-(1,2-dihydroxyethyl)phenyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2,4-difluorophenyl)amino]-7-(4-[(2R)-2,3-dihydroxypropyl]oxy)phenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

ethyl 3-[(2,4-difluorophenyl)amino]-7-(2-nitrophenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

3-[(2,4-difluorophenyl)amino]-7-(2-nitrophenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

ethyl 3-anilino-4-methyl-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

3-anilino-4-methyl-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2,4-difluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-sulfonamide;

ethyl 3-anilino-7-[2-(2-methoxyethoxy)ethyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(2,4-difluorophenyl)amino]-6-oxo-7-(tetrahydro-2H-pyran-2-ylmethyl)-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-anilino-7-benzyl-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

3-anilino-7-benzyl-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbohydrazide;

ethyl 3-anilino-7-[4-(dimethylamino)phenyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

3-anilino-7-[4-(dimethylamino)phenyl]-N-methoxy-N-methyl-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-7-[4-(dimethylamino)phenyl]-N-[3-(1H-imidazol-1-yl)propyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-7-[4-(dimethylamino)phenyl]-6-oxo-N-(2-piperidin-1-ylethyl)-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-N,N-dimethyl-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-N,N-diethyl-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-N-methoxy-N-methyl-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-N-[3-(4-methylpiperazin-1-yl)propyl]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-N-[3-(1H-imidazol-1-yl)propyl]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-N-[2-(diethylamino)ethyl]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-N-[2-(diethylamino)ethyl]-N-methyl-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-N-methyl-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-N-ethyl-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-N-(2-morpholin-4-ylethyl)-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-N-[2-(dimethylamino)ethyl]-N-methyl-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-N-(3-morpholin-4-ylpropyl)-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2,4-difluorophenyl)amino]-N-methoxy-N-methyl-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2,4-difluorophenyl)amino]-6-oxo-7-phenyl-N-(2-piperidin-1-ylethyl)-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-N-(2-hydroxy-1,1-dimethylethyl)-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

ethyl 3-[(3-chloro-2-cyanophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(2-cyano-3-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(2-cyano-5-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(4-fluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(4-fluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(3-chloro-4-fluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(2-cyanophenyl)amino]-7-(4-fluorophenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(2-cyano-3-methylphenyl)amino]-7-(4-fluorophenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(4-fluoro-3-methylphenyl)amino]-7-(4-fluorophenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(4-fluoro-3-methylphenyl)amino]-7-(4-chlorophenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(4-fluoro-3-methylphenyl)amino]-7-(3-methylphenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(3-methylphenyl)amino]-7-(3-methylphenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

3-[(2,4-difluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(3-chloro-4-fluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(2-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(3-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(3,5-dichlorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(3-nitrophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

6-oxo-7-phenyl-3-{{2-(trifluoromethoxy)phenyl}amino}-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(2,6-dichlorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-{{2-(difluoromethoxy)phenyl}amino}-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(2,6-difluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(4-fluoro-2-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

6-oxo-7-phenyl-3-({3-[(trifluoromethyl)thio]phenyl}amino)-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(3-bromo-4-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(3-bromo-2-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

6-oxo-7-phenyl-3-{{3-(trifluoromethoxy)phenyl}amino}-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-{{3-(methylthio)phenyl}amino}-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(4-fluoro-3-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(3-ethylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

7-(4-fluorophenyl)-3-[(3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(2,4-difluorophenyl)amino]-7-(4-methoxyphenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(2,4-difluorophenyl)amino]-7-(4-[(2S)-2,3-dihydroxypropyl]oxy)phenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

7-(4-acetylphenyl)-3-[(3-chlorophenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

7-(2-chlorophenyl)-3-[(4-fluoro-3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

7-(2-chlorophenyl)-3-[(3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(2-hydroxyphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(3-hydroxyphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

7-(4-fluorophenyl)-3-[(3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2,4-difluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

6-oxo-7-phenyl-3-{[3-(trifluoromethyl)phenyl]amino}-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(3,5-dichlorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(3-bromophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

6-oxo-7-phenyl-3-{[2-(trifluoromethoxy)phenyl]amino}-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-{{2-(difluoromethoxy)phenyl}amino}-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2,6-dichlorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(3-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(3-bromo-4-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-{{3-(methylthio)phenyl}amino}-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

6-oxo-7-phenyl-3-{{3-(trifluoromethoxy)phenyl}amino}-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(4-fluoro-3-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

6-oxo-7-phenyl-3-({3-[(trifluoromethyl)thio]phenyl}amino)-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(3-ethylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

7-(2-chlorophenyl)-3-[(3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2-cyano-3-methylphenyl)amino]-7-(4-fluorophenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(4-fluoro-3-methylphenyl)amino]-7-(4-fluorophenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2-cyanophenyl)amino]-7-(4-fluorophenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2-hydroxyphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(3-hydroxyphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2-cyanophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2-chlorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(3-cyanophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2-cyano-3-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2-cyano-5-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(3-chloro-4-fluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(4-fluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(3-chlorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(3-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbothioamide;

N,N-diethyl-3-[(3-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboximidamide;

3-[(3-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboximidamide;

3-[(2,4-difluorophenyl)amino]-N-(2-hydroxy-2-methylpropyl)-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

methyl 2-( {3-[(2,4-difluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridin-2-yl} carbonyl)hydrazinecarboxylate;

3-[(3-chlorophenyl)amino]-7-phenylthieno[2,3-b]pyridin-6(7H)-one;

ethyl 3-anilino-7-[4-(1-hydroxy-1-methylethyl)phenyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(2,4-difluorophenyl)amino]-7-{4-[(methylsulfonyl)amino]phenyl}-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

3-[(4-fluoro-3-methylphenyl)amino]-N-hydroxy-N-methyl-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;  
2-acetyl-3-anilino-7-phenylthieno[2,3-b]pyridin-6(7H)-one;  
N,N-diethyl-3-[(3-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboximidamide;  
3-anilino-6-oxo-7-pyridin-3-yl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;  
3-anilino-6-oxo-7-pyridin-3-yl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;  
3-anilino-7-phenyl-2-(pyrrolidin-1-ylcarbonyl)thieno[2,3-b]pyridin-6(7H)-one;  
3-anilino-7-phenyl-2-(piperidin-1-ylcarbonyl)thieno[2,3-b]pyridin-6(7H)-one;  
3-anilino-2-[(4-ethylpiperazin-1-yl)carbonyl]-7-phenylthieno[2,3-b]pyridin-6(7H)-one;  
3-anilino-7-[4-(dimethylamino)phenyl]-2-(pyrrolidin-1-ylcarbonyl)thieno[2,3-b]pyridin-6(7H)-one;  
3-[(2,4-difluorophenyl)amino]-2-(morpholin-4-ylcarbonyl)-7-phenylthieno[2,3-b]pyridin-6(7H)-one;  
3-[[6-oxo-7-phenyl-2-(pyrrolidin-1-ylcarbonyl)-6,7-dihydrothieno[2,3-b]pyridin-3-yl]amino]benzonitrile;  
3-[(3-chlorophenyl)amino]-7-phenyl-2-(pyrrolidin-1-ylcarbonyl)thieno[2,3-b]pyridin-6(7H)-one;  
3-[(2,4-difluorophenyl)amino]-7-phenyl-2-(pyrrolidin-1-ylcarbonyl)thieno[2,3-b]pyridin-6(7H)-one;  
3-[(4-fluorophenyl)amino]-7-phenyl-2-(pyrrolidin-1-ylcarbonyl)thieno[2,3-b]pyridin-6(7H)-one; or  
3-[(2,4-difluorophenyl)amino]-6-oxo-7-phenyl-N-pyrrolidin-3-yl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;  
or a pharmaceutically acceptable salt, solvate, hydrate, or N-oxide thereof.

28. (previously presented) A pharmaceutical composition comprising a compound of Claim 1 together with one or more pharmaceutically acceptable carriers, excipients or diluents.

29. (new) A compound according to claim 27 which is 3-[(3-Methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide.
30. (new) A pharmaceutical composition comprising the compound according to claim 29 together with one or more pharmaceutically acceptable carriers, excipients, or diluents.
31. (new) A method for treating a mammal suffering from rheumatoid arthritis comprising administering to the mammal a therapeutically effective amount of a compound according to claim 29.